

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER A-290-14

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

DETROIT DIESEL CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-3;

IT IS ORDERED AND RESOLVED: That the following Detroit Diesel Corporation 1992 model diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 8,500 pounds:

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
NDD11.1FZA1	11.1 677	Turbocharger Charge Air Cooler Powertrain Control Module

Engine models and codes are listed on attachments.

The following are the certification emission standards for this engine family in grams per brake-horsepower-hour:

<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
1.3	15.5	5.0	0.25

The following are the certification emission values for this engine family in grams per brake-horsepower-hour:

<u>Engine Family</u>	<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
NDD11.1FZA1	0.1	2.4	4.9	0.19

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 21st day of November, 1991.

A handwritten signature in cursive script, appearing to read "R. B. Summerfield", written in dark ink.

R. B. Summerfield
Assistant Division Chief
Mobile Source Division

Executive Order No.: A-290-14

1992 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET
HEAVY-DUTY DIESEL ENGINES

Manufacturer: Detroit Diesel Corporation

Engine Family: NDD11.1FZA1

Liter (CID): 11.1 (677)

Fuel Type: Diesel No. 2

Engine Type: I-6

Emission Control System and (Special Features): PCME, CAC, (TC)

ENGINE MODEL (ENG. CODE)	FUEL INJECTION PUMP MFR PART NO.	INJECTOR MFR PART NO.	MAXIMUM RATED HP AT RPM	FUEL RATE mm ³ /STROKE (LBS/HR)	PART. TRAP/ CATALYST MFR. P/N
11.1L					
1C	NA	(1) 5234935	350@1800	183.6 (109.9)	
1D			320@1800	166.7 (99.8)	
1E			325@1800	169.3 (101.4)	
2C	NA	(1) 5234935	340@1650	194.6 (106.8)	
3C	NA	(1) 5234935	320@2100	148.9 (104.0)	
4C	NA	(1) 5234935	320@2100	148.9 (104.0)	
5C	NA	(1) 5234935	320@1950	156.5 (101.5)	
6C	NA	(1) 5234935	320@1800	166.7 (99.8)	
6D			285@1800	149.0 (89.2)	
7C	NA	(1) 5234935	320@1800	166.7 (99.8)	
8C	NA	(1) 5234935	300@1800	156.4 (93.6)	

Engine Family Continued on Page 1B

(1) Diesel Technology Corporation

ISSUED: 08-30-91

REV. NO.:

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HEAVY-DUTY DIESEL ENGINES

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ENGINE MODEL (ENG. CODE)	FUEL INJECTION		MAXIMUM RATED HP AT RPM	FUEL RATE mm ³ /STROKE (LBS/HR)	PART. TRAP/ CATALYST MFR. P/N
	PUMP MFR PART NO.	INJECTOR MFR PART NO.			

ENGINE FAMILY NDD11.1FZA1 - CONTINUED11.1L

9C	NA	(1) 5234935	285@2100	133.9 (93.5)	
10C	NA	(1) 5234935	285@1800	149.0 (89.2)	
11C	NA	(1) 5234935	275@1800	143.3 (85.8)	
12C	NA	(1) 5234935	320@1700	177.3 (100.2)	
13C	NA	(1) 5234935	325@2100	151.0 (105.4)	
14C	NA	(1) 5234935	325@1800	169.3 (101.4)	

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